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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/855,626	05/15/2001	Harm Jan Willem Belt	PHNL 000297	9253

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PHILIPS INTELLECTUAL PROPERTY & STANDARDS
P.O. BOX 3001
BRIARCLIFF MANOR, NY 10510

EXAMINER

GRIER, LAURA A

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 04/07/2004

9

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/855,626

Applicant(s)

BELT ET AL.

Examiner

Laura A Grier

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 January 2004.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-8 and 10 is/are rejected.
- 7) ☒ Claim(s) 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

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DETAILED ACTION

Claim Objections

1. Claim 10 is objected to because of the following informalities: "comprising" is recited twice, consecutively. Appropriate correction is required.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 1-8 are 10** rejected under 35 U.S.C. 102(e) as being anticipated by Rasmusson et al., U. S. Patent No.6549627.

Regarding **claims 1 and 4**, Rasmusson et al. (herein, Rasmusson) discloses generating calibration signals for an adaptive beamformer (figures 5 and 6). Rasmusson's disclosure comprises a method and system of multiple inputs (405, and 405) coupled to an adaptive beamformer (417), which is used as acoustic echo canceller (abstract), wherein the echo canceling data is maintained in the adaptive filters (415/413) – memory, which reads kept data of individual history of each input signal, wherein the echo data is supplied to the beamformer,

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which reads on combined with current adaptive beamforming data (col. 3, lines 9-20, and col. 5, lines 8-64, lines 67 - col. 7, lines 1-14).

Regarding **claims 2 and 5**, Rasmusson discloses everything claimed as applied above (see claims 1 and 4, respectively). Rasmusson discloses in figures 5 and 6 respective inputs in parallel paths containing an acoustic path and beamformer path, where the signal paths are summed with adders and processed by the adaptive filters and beamformer.

Regarding **claims 3 and 6**, Rasmusson discloses everything claimed as applied above (see claims 1 and 4, respectively). Rasmusson further discloses the beamformer as an echo canceller, thus the adaptive beamformer comprises filtering (col. 6, lines 36-41).

Regarding **claim 7**, Rasmusson discloses everything claimed as applied above (see claims 4). Rasmusson inherently discloses echo canceller being in the a Time Domain or a Frequency Domain filter as evidence by the fact of the use adaptive FIR filters, which may be generated to act in either domain, respectively, as required by the invention.

Regarding **claim 8**, Rasmusson discloses everything claimed as applied above (see claim 7). Rasmusson inherently discloses the adaptive therein as claimed as evident by the fact that the FIR applying LMS in respect to the loudspeaker signal (col. 5, lines 48-52).

Regarding **claim 10**, Rasmusson discloses generating calibration signals for an adaptive beamformer (figures 5 and 6) for a hands-free environment (hands-free communication equipment) comprising a loudspeaker (401) coupled to multiple microphones (405 and 407) coupled to an adaptive beamformer (417), which is used as acoustic echo canceller (abstract), wherein the echo canceling data is maintained in the adaptive filters (415/413) – memory, which reads kept data of individual history of each input signal, wherein the echo data is supplied to

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the beamformer, which reads on combined with current adaptive beamforming data (col. 3, lines 9-20, and col. 5, lines 8-64, lines 67 - col. 7, lines 1-14).

4. Claim 9 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed 01/16/04 have been fully considered but they are not persuasive.

The applicant essentially argues that the prior art of Rasmusson et al. fails to disclose the claimed invention in regards the limitation, "... individual processing history of adaptive echo canceling data being kept based upon the input signals and combining that data with current adaptive beamforming data". In respect the broadest interpretation of the claim language, Rasmusson teaches the limitations of the claimed invention. The claim language does not limit a type of echo canceling data or a specific technique of keeping the echo data, thus the FIR adaptive filters used by Rasmusson, which are forms of memory or echo cancellers themselves supports the claimed limitation, and with the results of the filters being supplied to the beamformer, the then the echo data is combined with current adaptive beamforming data. Thus, the Rasmusson reference of prior art has been maintained.

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Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Laura A Grier whose telephone number is (703) 306-4819. The examiner can normally be reached on Monday - Friday, 7:30 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W. Isen can be reached on (703) 305-4386.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

Or faxed to:


(703) 872-9314 (for Technology Center 2600 only)

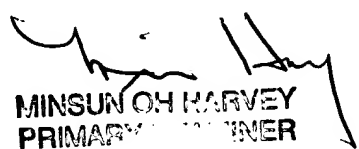
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Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,
Arlington, VA, Sixth Floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding
should be directed to the receptionist whose telephone number is (703) 305-4700.

LAG 
April 1, 2004


MINSUN OH HARVEY
PRIMARY INVENTOR